

LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A voltage controlled oscillator, comprising:

a resonant section that oscillates an alternating-current signal, said resonant section comprising:

a pair of output terminals;

an inductor connected between said pair of output terminals;

a variable capacitor parallelly connected to said inductor;

a pair of capacitors, where one electrode of each capacitor is serially ~~severally~~ connected to said pair of output terminals;

a pair of first switches, where each switch is serially ~~severally~~ provided between the other electrode of the pair of capacitors and a reference electrode; and

a second switch provided between the other electrodes of said pair of capacitors;

and

a negative resistance section that is provided between said resonant section and a power source and supplies an electric current to said resonant section synchronously with said alternating-current signal.

2. (Original) The voltage controlled oscillator according to claim 1, wherein said first and second switches are a type of transistor selected from a group that consists of NMOS transistors, PMOS transistors and CMOS transistors.

3. (Currently Amended) The voltage controlled oscillator according to claim 1, wherein said variable capacitor is a varactor device to which a control voltage is input and whose capacitance varies according to the control voltage.

4. (Original) The voltage controlled oscillator according to claim 1, wherein said inductor is a spiral inductor formed on a substrate.

5. (Currently Amended) The voltage controlled oscillator according to claim 1, wherein
said power source has high potential wiring and low potential wiring,
said pair of output terminals essentially having ~~consists of~~ a first output terminal and a second output terminal, and

said negative resistance section further comprising ~~comprises~~:

a first section, said first section ~~[[has:]]~~ having a first P-channel transistor, in which one of source/drain is connected to said high potential wiring, the other one of source/drain is connected to said first output terminal, and a gate ~~[[is]]~~ connected to said second output terminal; and a second P-channel transistor, in which one of source/drain is connected to said high potential wiring, the other one ~~[[is]]~~ connected to said second output terminal, and a gate is connected to said first output terminal; and

a second section, said second section ~~[[has:]]~~ having a first N-channel transistor, in which one of source/drain is connected to said low potential wiring, the other one is connected to said first output terminal, and a gate ~~[[is]]~~ connected to said second output terminal; and a second N-channel transistor, in which one of source/drain is connected to said low potential wiring, the other one is connected to said second output terminal, and a gate ~~[[is]]~~ connected to said first output terminal.

6. (Original) The voltage controlled oscillator according to claim 1, wherein said oscillator is the local oscillator of a phase locked loop circuit.